

YO9-99-302

09/409,277

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Reply to office action mailed 02/04/2004

The following is a complete listing of all claims in the application, with an indication of the status of each:

Listing of claims:

- 1 1. (Original). A computer implemented method of visual representation of
2 programming objects as graphical elements, wherein programming properties
3 of programming objects are reflected through graphical properties of graphical
4 elements, the method comprising the steps of:
5 detecting a change in a state of a data element representing a
6 programming object in visual representation and shown visually on a display
7 device, wherein the data element represents a programming object as graphical
8 elements and programming properties of programming objects are reflected
9 through graphical element properties;
10 determining graphical aspect changes that apply to graphical elements
11 of the programming object appropriate for the change in state; and
12 applying the graphical aspect changes to corresponding graphical
13 elements, wherein the graphical aspect changes include changes in color,
14 position and size.
- 1 2 (Previously presented). A computer implemented method as recited in
2 claim 1, wherein determining graphical aspect changes further comprises the
3 steps of:
4 traversing a list of graphical aspect references to acquire a graphic
5 aspect for the data element, wherein there is a many-to-one relationship
6 between graphical aspect references and a graphic aspect; and
7 for each graphic aspect referenced by the list of graphical aspect
8 references, determining whether the graphic aspect applies to the change in

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1 state.

1 3 (Original). A computer implemented method as recited in claim 1, wherein
2 the visual representation of a first programming object may include other
3 visual representations corresponding to at least one additional programming
4 object logically contained within the first programming object.

1 4 (Original). A computer implemented method as recited in claim 1, wherein
2 more than one visual representation is defined for a programming object.

1 5 (Original). A computer implemented method as recited in claim 4, wherein
2 any of the more than one visual representation may be used for the
3 programming object.

1 6 (Original). A computer implemented method as recited in claim 1, wherein
2 the visual representation for a superclass of a programming object is used as
3 the visual representation for a subclass programming object.

1 7 (Original). A computer implemented method as recited in claim 6, wherein
2 a visual representation of a superclass of the programming object is used as a
3 visual representation for a subclass of the programming object.

1 8 (Currently amended). An apparatus for visual representation of
2 programming objects as graphical elements comprising:
3 a data processing system comprising a display device, an interactive
4 device, as in a keyboard, a pointing device, a storage device, and a data
5 processor;
6 memory coupled to the data processor via a bidirectional bus, wherein

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1 the memory includes a first memory section for at least one program and a
2 second memory section for data;
3 computer code comprising a visual programming language, wherein
4 the computer code is stored in the first memory section, and the computer
5 code detects changes in state information corresponding to a data element that
6 is a visual representation of a programming object and applies graphic aspects
7 to a said visual representation of said programming object ~~the data element~~
8 which represents the state change; and
9 means for displaying the visual representation of a plurality of data
10 elements on the display device.

1 9 (Original). A machine readable medium containing code for visual
2 representation of programming objects as graphical elements, wherein
3 programming properties of programming objects are reflected through
4 graphical properties of graphical elements, the code implementing the steps of:
5 detecting a change in a state of a data element representing a
6 programming object in visual representation and shown visually on a display
7 device, wherein the data element represents a programming object as graphical
8 elements and programming properties of programming objects are reflected
9 through graphical element properties;
10 determining graphical aspect changes that apply to graphical elements
11 of the programming object appropriate for the change in state; and
12 applying the graphical aspect changes to corresponding graphical
13 elements, wherein the graphical aspect changes include changes in color,
14 position and size.